

IN THE CLAIMS

Please amend Claims 7, 10, 16, 17, 18, 20, 21, 22, 23, 26, 28 and 29, and add Claims 31-35, to read as follows.

1. (Previously Presented) An electron-emitting apparatus comprising:
an electron-emitting device including a first electrode, a second electrode that is provided so as to be insulated from the first electrode, and an electron-emitting film attached to the second electrode and insulated from the first electrode; and
an anode provided at a predetermined distance from the electron-emitting film,
wherein the first electrode, the second electrode, and the electron-emitting film oppose the anode,
such that a distance between the anode and the electron-emitting film is longer than a distance between the anode and the second electrode, and
a distance between the anode and the first electrode is longer than the distance between the anode and the electron-emitting film.
2. (Previously Presented) An electron-emitting apparatus according to Claim 1, further comprising a first voltage applying means for applying, to the anode, a potential that is higher than potentials applied to the first electrode and the second electrode.

3. (Previously Presented) An electron-emitting apparatus according to Claim 1, further comprising a second voltage applying means for applying a voltage between the first electrode and the second electrode.

4. (Original) An electron-emitting apparatus according to Claim 3, wherein when electrons are emitted from the electron-emitting film, a potential applied to the first electrode is set so as to be at least equal to a potential applied to the second electrode.

5. (Original) An electron-emitting apparatus according to Claim 3, wherein when no electrons are emitted from the electron-emitting film, a potential applied to the first electrode is set so as to be below a potential applied to the second electrode.

6. (Original) An electron-emitting apparatus according to Claim 1, wherein the electron-emitting film includes carbon or a carbon compound.

7. (Currently Amended) An electron-emitting apparatus according to Claim 6,

wherein said carbon or said carbon compound includes at least one of diamond like carbon, graphite, diamond, a carbon nanotube, a ~~graphitic~~ graphite nanofiber, and fullerene.

8. (Original) An electron source that is formed by arranging a plurality of electron-emitting apparatuses of any one of claims 1 to 7 and emits electrons from at least one of the plurality of electron-emitting apparatuses according to an input signal.

9. (Original) An image-forming apparatus comprising:
the electron source of Claim 8; and
an image forming member on which an image is formed by irradiation with electrons emitted from the electron source.

10. (Currently Amended) An electron-emitting device comprising:
a first electrode arranged on a surface of a substrate;
an insulating layer arranged on the first electrode;
a second electrode arranged on the insulating layer; and
a ~~film comprising~~ plurality of carbon fibers ~~including carbon as a~~
~~main ingredient~~ arranged on the second electrode,

wherein each carbon fiber including graphenes has a plurality of graphenes which are stacked so as not to be parallel to along an axial axis direction of the fiber, and

wherein the second electrode has two side surfaces that oppose each other in a direction substantially parallel to the surface of the substrate, and the ~~film~~ plurality of carbon fibers ~~[[is]]~~ are arranged so as to be shifted close to one of the two side surfaces.

11.-15. (Cancelled)

16. (Currently Amended) An electron-emitting device according to Claim 10,

wherein electrons are emitted from the ~~[[film]]~~ carbon fibers when a potential applied to the first electrode is set so as to be at least equal to a potential applied to the second electrode.

17. (Currently Amended) An electron-emitting device according to Claim 10,

wherein no electrons are emitted from the ~~[[electron-emitting film]]~~ carbon fibers when a potential applied to the first electrode is set so as to be below a potential applied to the second electrode.

18. (Currently Amended) An electron source in which are arranged a plurality of electron-emitting devices, each being an electron-emitting device according to [[of]] any one of claims 10, 16 and 17.

19. (Original) An image-forming apparatus comprising:
the electron source of Claim 18; and
a phosphor.

20. (Currently Amended) An electron-emitting apparatus comprising:
a first electrode arranged on a surface of a substrate;
an insulating layer arranged on the first electrode;
a second electrode arranged on the insulating layer; and
a ~~film comprising~~ plurality of carbon fibers, ~~including carbon as a main ingredient~~, arranged on the second electrode;
an anode disposed at a distance from the ~~film~~ plurality of carbon fibers, the first electrode, the insulating layer, the second electrode and the substrate;
a first power source for applying a necessary electric field, to cause an electron emission from the plurality of carbon fibers, at least between the anode and the second electrode; and

a second power source for applying a necessary electric field, to stop the electron emission from the plurality of carbon fibers, between the first electrode and the second electrode.

21. (Currently Amended) An electron-emitting apparatus according to Claim 20, wherein

said first power source forms an electric field necessary for causing the electron emission from ~~the fibers~~ the plurality of carbon fibers, by applying to said anode a voltage higher than a voltage applied to said second electrode and said first electrode, and

said second power source forms an electric field necessary for stopping the electron emission from ~~the fibers~~ the plurality of carbon fibers, by applying to said first electrode a voltage lower than a voltage applied to said second electrode.

22. (Currently Amended) An electron-emitting apparatus according to Claim 20, wherein each carbon fiber is a carbon nanotube.

23. (Currently Amended) An electron-emitting apparatus according to Claim 20, wherein each carbon fiber comprises a plurality of ~~graphens~~ graphenes which are stacked around in a direction that is not perpendicular to an axial axis direction of said carbon fiber.

24. (Previously Presented) An electron source that is formed by arranging a plurality of electron-emitting apparatuses, each being an electron-emitting apparatus according to any one of Claims 20 to 23, and which emits electrons from at least one of the plurality of electron-emitting apparatuses according to an input signal.

25. (Previously Presented) An image forming apparatus comprising:
the electron source of Claim 24; and
an image forming member on which an image is formed by irradiation with electrons emitted from the electron source.

26. (Currently Amended) An electron-emitting apparatus comprising:
a substrate having a first electrode and a second electrode;
an anode disposed at a distance from the substrate;
an electron-emitting film, facing the anode, attached to a surface of the second electrode;
a first power source for applying a necessary electric field, to cause an electron emission from the electron-emitting film, at least between the anode and the second electrode; and
a second power source for applying a necessary electric field, to stop the electron emission from the electron-emitting film, between the first electrode and the second electrode,

wherein a distance between the first electrode and the anode is larger than a distance between the second electrode and the anode.

27. (Previously Presented) An electron-emitting apparatus according to claim 26, wherein

said first power source forms an electric field necessary for causing the electron emission from the electron-emitting film, by applying to said anode a voltage higher than a voltage applied to said second electrode and said first electrode, and

said second power source forms an electric field necessary for stopping the electron emission from the electron-emitting film, by applying to said first electrode a voltage lower than a voltage applied to said second electrode.

28. (Currently Amended) An electron-emitting apparatus according to claim 26, wherein

said electron-emitting film comprises ~~fibers including carbon~~ a plurality of carbon fibers.

29. (Currently Amended) An electron-emitting apparatus according to claim 28, wherein each carbon fiber includes a plurality of ~~graphens~~ graphenes which are stacked along in a direction that is not perpendicular to an axial axis direction of the carbon fiber.

30. (Previously Presented) An image forming apparatus comprising:
a plurality of the electron-emitting apparatuses, each being an
electron-emitting apparatus according to any one of claims 26 to 29, and wherein each
emits electrons from at least one of the plurality of electron-emitting apparatuses according
to an input signal; and
phosphors which emit light by irradiation with electrons emitted
from the electron-emitting film.

31. (New) An electron-emitting device comprising:
a first electrode arranged on a surface of a substrate;
an insulating layer arranged on the first electrode;
a second electrode arranged on the insulating layer; and
a plurality of carbon fibers arranged on the second electrode,
wherein each carbon fiber comprises a plurality of graphenes stacked
in a direction that is not perpendicular to an axis direction of the fiber, and
wherein the plurality of carbon fibers are arranged on the second
electrode so that the plurality of carbon fibers are close to a part of an outer periphery of
the second electrode.

32. (New) An electron-emitting device according to claim 31,

wherein electrons are emitted from the carbon fibers when a potential applied to the first electrode is set so as to be at least equal to a potential applied to the second electrode.

33. (New) An electron-emitting device according to claim 31, wherein no electrons are emitted from the carbon fibers when a potential applied to the first electrode is set so as to be below a potential applied to the second electrode.

34. (New) An electron source, comprising:
the substrate; and
a plurality of electron-emitting devices arranged on the substrate, each electron-emitting device being an electron-emitting device according to any one of claims 31, 32 and 33.

35. (New) An image-forming apparatus comprising:
the electron source of claim 34; and
a phosphor.